

TIBCO Messaging Appliance P-7500

High speed, ultra-low latency communication is rapidly becoming a critical foundation for business. Companies are moving from a handful of people-driven monolithic applications to real-time, event-driven architectures, with hundreds to thousands of services and millions of business events. The result is at least ten times greater communication volume over the network, reaching tens of millions of messages per second, and the need for faster message processing to provide the same overall response times users experience today.

Companies have successfully deployed TIBCO Rendezvous®, the leading ultra-low latency messaging software, to support millions of messages per second. The challenge is that the current combination of hardware, operating systems, and messaging software has hit a formidable barrier – it cannot deliver ten million messages per second with microsecond-level latency AND deliver the lower costs that business is demanding.

TIBCO Messaging Appliance P-7500

The TIBCO Messaging Appliance™ P-7500 provides a Rendezvous backbone as pure hardware in a single box. By replacing the standard hardware, operating system, and messaging software with special purpose hardware, the TIBCO Messaging Appliance P-7500 delivers 10 times the message volumes and performance, one tenth the rack space and power consumption, and greater reliability – all with a lower cost of ownership.

Built on TIBCO Rendezvous

The TIBCO Messaging Appliance P-7500 provides a hardware implementation of Rendezvous. More than a decade of investment by TIBCO and the experience of over 2,000 customers has made Rendezvous one of the most reliable software products available. Today, Rendezvous supports many of the largest mission critical systems in production, supporting millions of messages per second. Rendezvous also has one of the largest messaging partner ecosystems. Hundreds of the leading applications, technologies, and information sources have already been integrated with Rendezvous across many industries.



TIBCO Messaging Appliance P-7500

AT A GLANCE

The TIBCO Messaging Appliance P-7500

provides a TIBCO Rendezvous network in a box. The TIBCO Messaging Appliance P-7500 has a specialized architecture with Rendezvous built directly into the hardware. As a result, it consistently delivers up to 10 times greater message throughput and 50% lower message delivery times, and can handle thousands of unique client connections. This superior performance comes with lower cost and paves the way for greener IT.

BENEFITS

- 10x increase in messaging volume of current software-only offerings: Up to 10 million messages per second (at realistic customer payloads of 50 bytes per message)
- 50% reduction in base latency
- 10x increase in the predictability of performance and data flows
- 10x greener IT: Uses one tenth the rack space, power, and cooling of the traditional servers needed to support the same message volumes
- Lowers the overall cost of administration by reducing the number of systems that need to be deployed and managed
- Improves reliability and availability by providing redundant components within each appliance and hardware fault tolerance across appliances
- Drop-in compatibility with existing Rendezvous applications
- Enhances application processing on existing systems, accelerates message delivery, and reduces host network traffic by offloading message filtering onto the appliance

 **TIBCO**[®]
The Power of Now[®]



TIBCO Messaging Appliance P-7500

ATTRIBUTES & CAPABILITIES

A Proven Communications Backbone

Applications can select different qualities of service, including reliable or guaranteed delivery, as appropriate, for each interaction. Messaging can be publish/subscribe or request/reply, point-to-point or multicast, synchronous or asynchronous, and delivered via Link Aggregation Control Protocol (LACP) trunking, local-area network (LAN), wide area network (WAN), or the internet. Rendezvous messages are self-describing and platform-independent, with a user-extensible type system that provides support for binary and custom data formats.

10x the Communication Volumes

The TIBCO Messaging Appliance P-7500 accelerates message processing and filtering by replacing traditional hardware, operating systems, and software with Rendezvous functionality as firmware in field programmable gate arrays (FPGA). Each appliance offers multiple network interfaces to support increased volumes and high availability. Options include four or eight 1Gb interfaces, or two 10Gb interfaces used as a fault tolerant pair. Each network interface is a special purpose card built with application-specific integrated circuits (ASIC) and designed to work with the core FPGA network message processing logic. This combination in a single appliance has demonstrated ten times the message throughput compared to a traditional server with messaging software.

50% Lower Latency, 10x Less Variation

The TIBCO Messaging Appliance P-7500 is designed to deliver predictable microsecond-level latency. It reduces latency and variance in message times by replacing traditional hardware, operating systems, and software with special purpose FPGA- and ASIC-based hardware

designed for low latency messaging. The result is that a single messaging appliance can cut end-to-end latency in half compared to a traditional software-based deployment, and can deliver 10x increase in the predictability of performance and data flows. This eliminates the delays due to context switching and ensures consistent microsecond-level delivery.

Built-in Reliability and Availability

The TIBCO Messaging Appliance P-7500 adds built-in facilities for hardware fault tolerance that improve uptime and performance. It includes redundant power supplies, fans, and other components to protect against a single point of failure within each appliance. In addition, you can deploy two appliances and configure them for active failover so that when a failover does occur, the failover appliance automatically takes over existing client connections and ensures message reliability. When deployed in such an active-active fault tolerant configuration, the TIBCO Messaging Appliance P-7500 can provide 99.999% uptime to the connected client applications.

100% Compatible with Existing Deployments

The TIBCO Messaging Appliance P-7500 is out-of-the-box compatible with existing Rendezvous 5.x deployments and higher. A single appliance is able to replace ten or more existing servers running Rendezvous daemons and support up to 6,000 client connections on heterogeneous networks. It does this by communicating directly with the Rendezvous clients via TCP/IP and bypassing any multicast transmission issues. By using the TIBCO Messaging Appliance Gateway, users can easily configure messaging between the TIBCO Messaging Appliance P-7500 and local network multicast, Rendezvous Remote Daemons, or other TIBCO Messaging Appliances.

HARDWARE SPECIFICATIONS

- The TIBCO Messaging Appliance P-7500 is a 4U (7 inch x 19 inch x 30 inch) rack-mountable unit. Fits in a standard data center rack.
- Average power consumption is approximately 375 watts per unit.
- New functionality can be added as firmware.
- Monitoring and management is provided via a Secure Shell (ssh) command line interface, a web-based Administrator console, and a Simple Network Management Protocol (SNMP) interface.

TIBCO Software Inc. (NASDAQ: TIBX) technology digitized Wall Street in the '80s with its event-driven "Information Bus" software, which helped make real-time business a strategic differentiator in the '90s. Today, TIBCO's infrastructure software gives customers the ability to constantly innovate by connecting applications and data in a service-oriented architecture, streamlining activities through business process management, and giving people the information and intelligence tools they need to make faster and smarter decisions, what we call The Power of Now®. TIBCO serves more than 3,000 customers around the world with offices in more than 20 countries and an ecosystem of over 200 partners. Learn more at www.tibco.com.



www.tibco.com

Global Headquarters
3303 Hillview Avenue
Palo Alto, CA 94304

Tel: +1 650-846-1000
+1 800-420-8450

Fax: +1 650-846-1005